



MEMORANDUM FOR RECORD

Brian C. Rayner
Senior Air Safety Investigator
Eastern Region

Date: December 16, 2020

Person Contacted: Doug Killingsworth – FAA Aviation Safety Inspector –
NTSB Accident Number: ERA20LA069 Mt. Sterling, KY

Narrative:

Mr. Killingsworth was assigned from the FAA Louisville FSDO to respond to this accident. He performed the examination of the airplane, interviewed witnesses, and conducted multiple interviews with the pilot/owner. Mr. Killingsworth provided the information he gathered through a series of telephone calls and emails. The following is a summary of what he provided.

The airplane's most recent condition inspection was conducted on January 3, 2020 at 405.1 total aircraft hours. The hobbess meter at the accident site on January 6, 2020, showed 405.9 total aircraft hours.

Examination of the wreckage was performed by Mr. Killingsworth and another inspector at the accident site, and at the pilot/owner's hangar after recovery of the airplane. Both wings and the structure beneath the engine and cockpit were destroyed by impact. The cockpit, canopy, cabin, empennage, and tail sections all appeared intact. The fuel selector was found in the "Off" position and could not be rotated by hand where the airplane came to rest.

The two main fuel tanks were voided by impact and the 9-gallon header tank was "ruptured beneath the pickup line" and contained no fuel. The fuel system was damaged by impact, but continuity of the system was confirmed from the main tanks and the header tank through the fuel selector both visually and with compressed air. The gascolator and fuel screens were inspected, and they were clear and absent of debris.

The airplane was placed on jacks and suspended by an engine hoist. Due to impact damage, all three propeller blades were cut to matching lengths. Fuel was plumbed to the carburetor from an external tank and a substitute switch was used in lieu of the impact-damaged ignition switch. An engine start was attempted, and the engine started immediately, accelerated smoothly and ran continuously without interruption until stopped with the ignition switch. The engine was

restarted, and it ran smoothly through a magneto check that confirmed operation of both magnetos before the engine was stopped again.

In conversation with the pilot Mr. Killingsworth learned that the header tank contained 9 gallons of fuel, that the airplane consumed about 8 gallons per hour in cruise flight, and that the pilot estimated the accident flight was “about 45 minutes” in duration and involved “several” touch-and-go landings.

The pilot reported that there were no deficiencies with the performance and handling of the airplane prior to the loss of engine power. When questioned about the fuel system and his fuel management, the pilot was “adamant” that he positioned the selector in the header-tank position prior to the accident and added that he had to “raise the gate” prior to moving the selector.